



Roof Repairs 3 — Sheathing Application

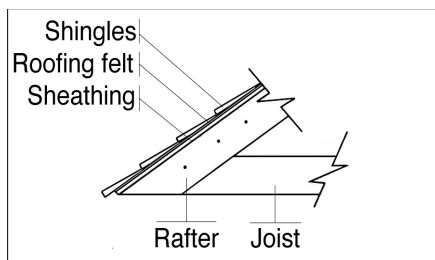


Figure 1.

The sheathing layer of the roof is nailed to the rafter or trusses of the roof system (see Figure 1).

Best results come with replacing damaged sheathing with the same materials as the undamaged section of the roof. In no case may a different thickness be used. Thickness may not be built up satisfactorily with felt, shingles, or furring on rafters or trusses. Roof strength usually depends upon all sections of the roof having the same thickness.

Under the multiple pressures of shortages of time, skilled or reputable workers, materials, etc., it may be tempting to short-cut or make do on repairs, but remember that a depreciated home and future expensive trouble can come with such a decision. You may receive insurance or other assistance now; later, when problems reappear, you may bear those costs alone.

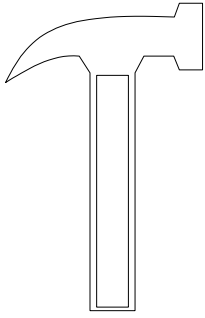
First, a word of general advice on applying sheathing to rafters. The most frequent problem with roofs is buckling and warping, caused mainly by improper spacing of solid sheathing materials. More than any other area of a house, roofs are exposed to extremely hot and cold temperatures. Roofing materials expand when hot and contract when cold, and need room to "breathe." This means that adequate cracks, about $\frac{1}{16}$ to $\frac{1}{8}$ inch, must be left at joints between solid sheathing. Plenty of cracks are present with 1x6 sheathing, thus spacing is not as critical. Manufactured spacing clips are available to use in spacing sheets of material and serve only that purpose. If clips are not used, be careful to provide adequately wide cracks on all sides of each sheet of material used.

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Adapted by UF/IFAS from:
Document DH-060,
IFAS Disaster Handbook for
Extension Agents (developed
by the Cooperative Extension
Service for the benefit of
Florida's citizens)

Following are some minimum procedures required for:

- 1x6 T&G (Tongue and Groove) Boards—Fasten to rafters with corrosion-resistant, HD (hot-dipped) nails or staples at the rate



of two 8d nails or two 1³/₄-inch staples per board on each rafter or truss.

- Plywood Sheathing

- Joints must be placed over rafters.
- Space sheets as described earlier.
- Sheathing must continue over two or more spans.
- The face grain of the plywood must run perpendicular to the roof rafters.

“...it may be tempting to short-cut or make do on repairs, but remember that such a decision can result in a depreciated home and expensive trouble in the future.”

- Particle Board Sheathing

- May be applied either parallel or perpendicular to rafters.
- Care must be taken to stagger applications so that four panel corners do not meet at one point.
- A minimum 1/16-inch gap between boards is required.
- Do not nail within 3/8-inch from the panel edge.
- Provide 1/2-inch gap from masonry (i.e., walls, chimneys).
- Take care to over-cut holes for fitting around vents, plumbing, etc.
- Do not force fit.

- Fastenings should be with three 8d nails or four 1³/₄-inch staples per rafter crossed.
- Breathing sheathing will form a good base for the next layers of roofing, the roofing felt and asphalt shingles.